SAF-RC-191
100N Field Remediation - Other
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required

COMMENTS:

SDG XP0007 SAF RC-191

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-N-84:2 - Oil

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

August 20, 2013

Joan Kessner
WC-Hanford, Inc.
2620 Fermi Avenue
MSIN H4-21
Richland, Washington 99354

Re: RC-191 Other Solid/Liquid
Work Order: 331522
SDG: XP0007

Dear Joan Kessner:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 14, 2013. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1616.

Sincerely,

Orlette Johnson
Project Manager

Purchase Order: 1510
Chain of Custody: RC-191-054
Enclosures

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Case Narrative

Receipt Narrative
for
WC-HANFORD, INC.
SDG: XP0007
Work Order: 331522

August 20, 2013

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on August 14, 2013 for analysis.

Sample Identification: The laboratory received the following sample:

Laboratory ID	Client ID
331522001	J1RWF7

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry.

Orlette Johnson
Project Manager

Chain of Custody and Supporting Documentation

331522

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-191-054

Page 1 of 1

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Project Designation 100N Field Remediation	**Sampling Location** 100-N-84:2 - Oil		**SAF No.** RC-191
Ice Chest No. WCH-11-063	**Field Logbook No.** EL-1652-10	**COA** 01N8422600	**Method of Shipment** fed EX
Shipped To Eberline - GEL	**Offsite Property No.** A120904		**Bill of Lading/Air Bill No.** See OSPC

Price Code | **Data Turnaround** 7 Days

POSSIBLE SAMPLE HAZARDS/REMARKS
None

Special Handling and/or Storage
None

Preservation	None											
Type of Container	G											
No. of Container(s)	1											
Volume	250mL											
SAMPLE ANALYSIS	Ignitability - 1010											
Sample No.	**Matrix**	**Sample Date**	**Sample Time**									
J1RWF7	OTHER	8/12/13	1210	X								

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1225 8/12/13	Don He:Delberg	1225 8/12/13
Don He:Delberg	8/12/13 1615 8/12/13	Ciara Bingham	1615
Ciara Bingham	8-12-13 1617	1000 Battelle fridge 1B	1617 8-12-13
1000 Battelle, fridge 1B	1210 8-13-13	Ciara Bingham	8-13-13 1210
Ciara Bingham	WCH 8-13-13 1215	fed EX	
			8-14-13 0913

Sign/Print Names

SPECIAL INSTRUCTIONS
Run Ignitability to 200F

REVIEWED BY K.W. via email DATE 8-13-13

XP0007

FINAL SAMPLE DISPOSITION | Disposal Method | Disposed By | Date/Time

WCH-EE-011

Generated Date/Time: 08/12/2013 07:49, PDT

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: WCHN	**SDG/AR/COC/Work Order:** 331522
Received By: JP	**Date Received:** 8-14-13

Suspected Hazard Information	Yes	No	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0cpm
Classified Radioactive II or III by RSO?		✓	If yes, Were swipes taken of sample contatiners < action levels?
COC/Samples marked containing PCBs?		✓	
Package, COC, and/or Samples marked as beryllium or asbestos containing?		✓	If yes, samples are to be segregeated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		✓		Preservation Method: Ice bags Blue ice Dry ice (None) Other (describe) *all temperatures are recorded in Celsius 21
2a	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: 415027609 Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?		✓		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			
14	Carrier and tracking number.				Circle Applicable: (FedEx Air) FedEx Ground UPS Field Services Courier Other 7904 5475 1485

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials GP Date 8-14-13 Page 1 of 1

Laboratory Certifications

List of current GEL Certifications as of 20 August 2013

State	Certification
Alaska	UST−110
Arkansas	88−0651
CLIA	42D0904046
California NELAP	01151CA
Colorado	SC00012
Connecticut	PH−0169
Delaware	SC00012
DoD ELAP A2LA ISO 17025	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−12−00283, P330−12−00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA130005
Maryland	270
Massachusetts	M−SC012
Nevada	SC000122011−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68−00485
Plant Material Permit	PDEP−12−00260
South Carolina Chemistry	10120001
South Carolina Radiochemi	10120002
Tennessee	TN 02934
Texas NELAP	T104704235−13−8
Utah NELAP	SC000122013−8
Vermont	VT87156
Virginia NELAP	460202
Washington	C780−12
Wisconsin	999887790

General Chem Analysis

Case Narrative

General Chemistry Narrative
WC-HANFORD, INC. (WCHN)
SDG XP0007

Method/Analysis Information

Product:	**Flashpoint by Closed Cup**		
Analytical Batch:	1323813	**Method:**	SW1010A Closedcup Flash Pt 200

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 1010A:

Sample ID	Client ID
331522001	J1RWF7
1202930661	331522001(J1RWF7) Sample Duplicate (DUP)
1202930662	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-027 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Hazardous Waste analysis was performed on a Pensky-Martens Semi-Automatic Flash Point Tester.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 331522001 (J1RWF7).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

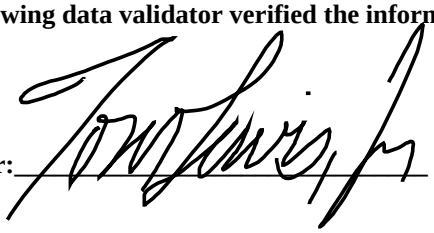
Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:  **Date:** 27Aug13

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

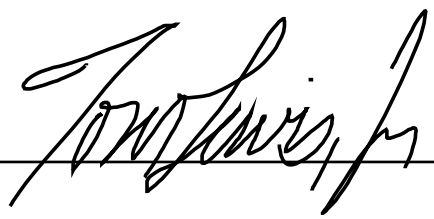
WCHN001 WC-HANFORD, INC.

Client SDG: XP0007 GEL Work Order: 331522 Project: RC-191 Other Solid/Liq

The Qualifiers in this report are defined as follows:
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Orlette Johnson.

Reviewed by 

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2013

Company : WC-Hanford, Inc.
Address : 2620 Fermi Avenue
MSIN H4-21
Richland, Washington 99354
Contact: Joan Kessner
Project: RC-191 Other Solid/Liquid

Client SDG: XP0007

Client Sample ID: J1RWF7
Sample ID: 331522001
Matrix: Misc Liquid
Collect Date: 12-AUG-13 12:10
Receive Date: 14-AUG-13
Collector: Client

Project: WCHN00513
Client ID: WCHN001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
SW1010A Closedcup Flash Pt 200 "As Received"											
Ignitability		>200	75.0	75.0	F	1	LYG1	08/20/13	0930	1323813	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 1010A	

Notes:

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: August 22, 2013

WC-Hanford, Inc.
2620 Fermi Avenue
MSIN H4-21
Richland, Washington

Contact: **Joan Kessner**

Workorder: **331522** **Client SDG:** XP0007 **Project Description:** RC-191 Other Solid/Liquid

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Hazardous Waste											
Batch 1323813											
QC1202930661 331522001 DUP											
Ignitability		>200		>200	F	0.00		(0%-9%)	LYG1	08/20/13	10:45
QC1202930662 LCS											
Ignitability	81.0			81.0	F		100	(97%-103%)		08/20/13	08:45

Notes:

The Qualifiers in this report are defined as follows:

- > Result greater than quantifiable range or greater than upper limit of the analysis range
- B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).
- C Target analyte was detected in the sample and the associated blank, and the sample concentration was <= 5 times the blank concentration.
- D Results are reported from a diluted aliquot of sample.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.